



# Multicomm Sciences Int'l, Inc

Wireless Engineering Services

FCC - Satellite - Microwave - Lightguide  
Frequency Coordination - Path Surveys  
Radiation Hazard Testing - CAD & Route Mapping

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## **FREQUENCY COORDINATION REPORT**

### **4 AND 6 GHZ TRANSMIT-RECEIVE EARTH STATION**

#### **INTERSTATE COMMUNICATIONS INC.**

**BATON ROUGE, LA**

**MARCH 7, 2008**

#### **1. CONCLUSIONS**

An Interference Study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed Earth Station demonstrates that this site will operate satisfactorily with the Common Carrier Microwave Environment as defined on the frequency coordination data sheet.

#### **2. SUMMARY OF RESULTS**

There were no potential great circle interference cases at 4 GHz. All of the potential great circle interference cases at 6 GHz were found to be acceptable on the basis that harmful interference will not likely result from the proposed operation, considering the criteria, the potential interference receive levels, and the total propagation losses.

***There were no reported cases of rain scatter beam intersections.***

3. **SUPPLEMENTAL SHOWING**

The Satellite Earth station proposed in this Application was coordinated by Multicomm Sciences International, Inc., Frequency Coordinators Group, using computer techniques and in accordance with Parts 25 of the FCC Rules and Regulations.

4. **FREQUENCY COORDINATION DATA**

Frequency Coordination Data which is attached, contains the following:

Technical Characteristics of Proposed Earth Station

Horizon Antenna Gain Plot

Discrimination Angle Plot

Local Horizon Plot

Satellite Elevation Plot

4 and 6 GHz Coordination Contour

4 and 6 GHz Rain Scatter

5. **FREQUENCY COORDINATION STATEMENT (FCC PART 101)**

Holders of licenses, permittees, prior filed applicants or planners of 6 GHz transmitting stations were notified on July 26, 2007, October 31, 2007 and February 26, 2008 of the proposed Earth Station technical details in accordance with Section 25.203 (c-2) of the FCC Rules and Regulations. Satisfactory coordination was achieved on the basis that harmful interference would not occur, or that sufficient terrestrial blocking exists.

AT&T Cingular  
Star Telephone  
Plaquemines Parish Government  
Delta Media Corp  
Texas Eastern Communications  
Cleco Power LLC  
Verizon Wireless Personal Comm LP  
Alltell Comm of N Louisiana Cellular LP  
Alltell Mobile of Louisiana LLC  
Alltell Wireless of Alexandria LLC  
Centennial Southeast License Co LLC  
GTE Mobilnet of South Texas LP  
Lafourche Telephone Co LLC  
Cellular South Licenses  
Mississippi Authority for ED TV  
Networks USA  
Sprint Spectrum LP DBA Sprint PCS  
Sprint Spectrum LP Louisiana

6. **Certification of Person Responsible for Preparing Frequency Coordination Information Submitted in this Application**

I hereby certify that I am the technically qualified person responsible for preparation of the frequency coordination information contained in this application; that I am familiar with Parts 101 and 25 of the Commission's Rules; that I have either prepared or reviewed the frequency coordination information submitted in this application; and, that it is complete and accurate to the best of my knowledge.



Victor Nexon, Jr., President  
MSI Frequency Coordinators Group  
Multicomm Sciences International, Inc.  
March 7, 2008



SATELLITE EARTH STATION  
 FREQUENCY COORDINATION DATA  
 02/26/2008  
 LICENSE MODIFICATION E7107

COMPANY NAME:	INTERSTATE COMMUNICATIONS INC.
EARTH STATION LOCATION:	BATON ROUGE, LA
CALL SIGN	E7107
LATITUDE (DMS):	30 25 54.1 NAD 83
LONGITUDE (DMS):	91 11 7.1 "
SITE GROUND ELEVATION (FT. AMSL):	13.0 (Change from 33')
ANTENNA CENTER LINE ( FT)	10.0
ANTENNA TYPE:	S.A. 5M
	8008B
ANTENNA DIAMETER (METERS):	5.0
4 GHZ ANTENNA GAIN (DBI):	44.5
15 DB HALF BEAMWIDTH (DEG):	1.92
6 GHZ ANTENNA GAIN (DBI):	47.5
15 DB HALF BEAMWIDTH (DEG):	1.28
•	
OPERATING MODE:	T/R
RECEIVE BAND (MHZ):	3700 - 4200
TRANSMIT BAND (MHZ):	5925 - 6425
EMISSION DESIGNATOR	300KG7W
MODULATION:	DIGITAL
MAX. AVAILABLE RF POWER (DBW/4KHZ):	-14.0
(DBW/300KHZ):	4.8
MAX. EIRP (DBW/4KHZ):	33.5
(DBW/300KHZ):	52.3
MAX. PERMISSIBLE INTERFERENCE POWER	
4 GHZ 20% (DBW)	-140.0
4 GHZ 0.0100% (DBW)	-130.0
6 GHZ 20% (DBW/4KHZ)	-154.0
6 GHZ 0.0025% (DBW/4KHZ)	-131.0
SATELLITE ARC (MIN/MAX)	67/143 DEG
AZIMUTH	138.4/248.3 DEG
ELEVATION	45.8/ 24.3 DEG
RADIO CLIMATE	A
RAIN ZONE	1
MAXIMUM GREAT CIRCLE COORDINATION DISTANCE (KM)	
4 GHZ	196.4
6 GHZ	109.6
PRECIPITATION SCATTER CONTOUR RADIUS (KM)	
4 GHZ	247.5
6 GHZ	205.2
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BATON ROUGE, LA

30 25 56

91 11 7

AZ DEG	DISC DEG	HOR DEGREES	4GHZ HOR GAIN	6GHZ HOR GAIN	4GHZ COORD KM	6GHZ COORD KM	RAIN 4 SCAT KM	RAIN 6 SCAT KM
5.	117.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
10.	122.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
15.	123.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
20.	118.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
25.	113.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
30.	108.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
35.	103.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
40.	98.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
45.	93.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
50.	88.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
55.	83.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
60.	78.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
65.	73.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
70.	68.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
75.	63.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
80.	58.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
85.	53.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
90.	48.	.0	-10.0	-10.0	160.9	124.7	247.5	205.2
95.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
100.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
105.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
110.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
115.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
120.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
125.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
130.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
135.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
140.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
145.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
150.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
155.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
160.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
165.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
170.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
175.	46.	.0	-9.5	-9.5	163.0	126.3	247.5	205.2
180.	45.	.0	-9.3	-9.3	164.1	127.1	247.5	205.2
185.	43.	.0	-8.8	-8.8	166.4	128.9	247.5	205.2
190.	41.	.0	-8.3	-8.3	168.7	130.7	247.5	205.2
195.	39.	.0	-7.8	-7.8	171.0	132.5	247.5	205.2
200.	37.	.0	-7.1	-7.1	174.0	134.8	247.5	205.2
205.	34.	.0	-6.4	-6.4	177.4	137.5	247.5	205.2

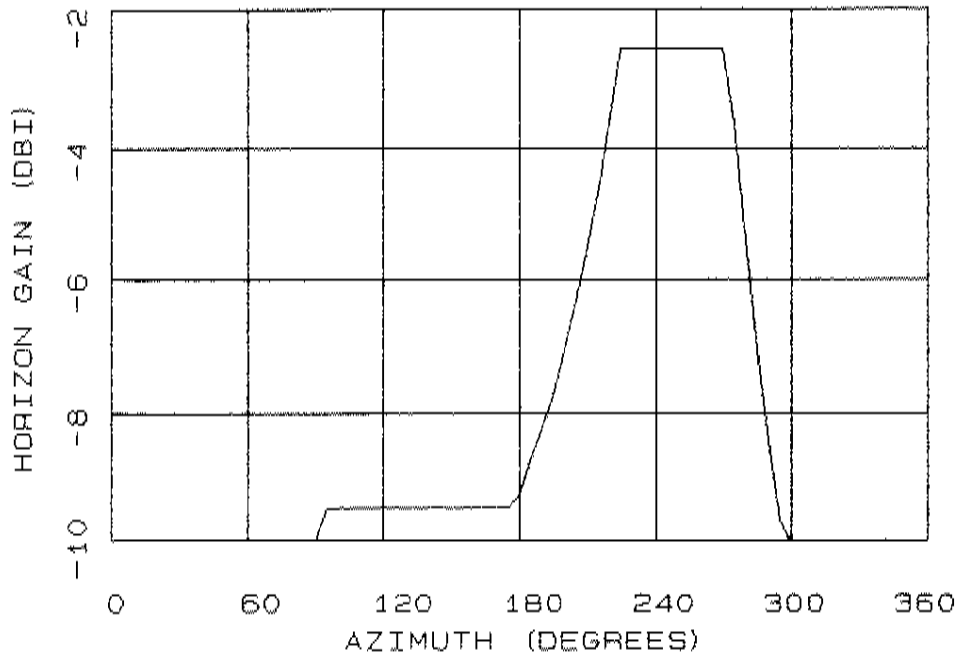
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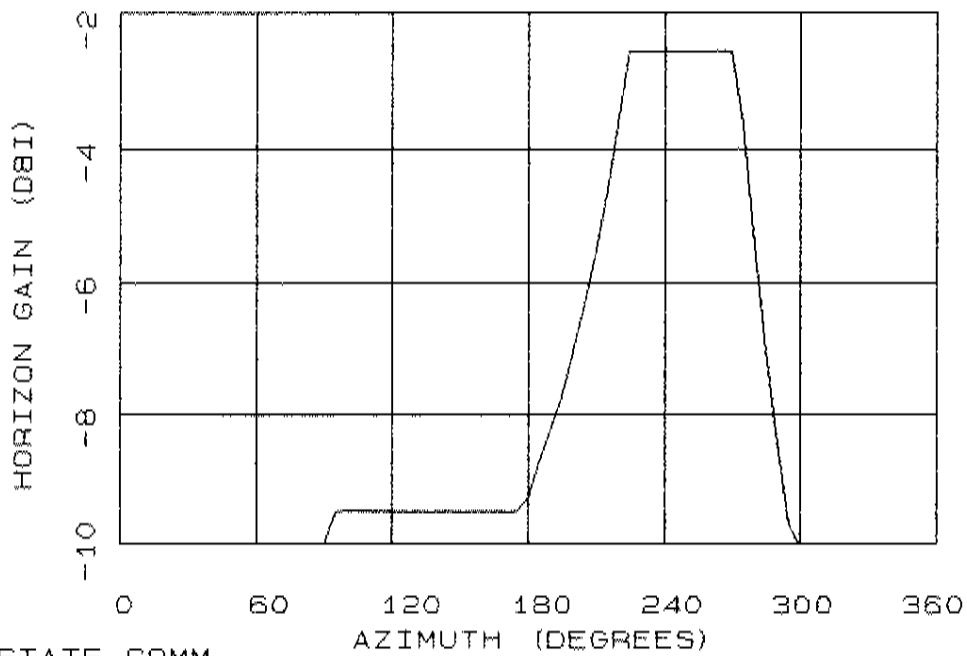
AZ DEG	DISC DEG	HOR DEGREES	ANG	4GHZ HOR GAIN	6GHZ HOR GAIN	4GHZ COORD KM	6GHZ COORD KM	RAIN 4 SCAT KM	RAIN 6 SCAT KM
210.	32.	.0		-5.6	-5.6	181.3	140.5	247.5	205.2
215.	29.	.0		-4.7	-4.7	185.7	143.9	247.5	205.2
220.	27.	.0		-3.7	-3.7	190.7	147.8	247.5	205.2
225.	24.	.0		-2.6	-2.6	196.4	152.2	247.5	205.2
230.	24.	.0		-2.6	-2.6	196.4	152.2	247.5	205.2
235.	24.	.0		-2.6	-2.6	196.4	152.2	247.5	205.2
240.	24.	.0		-2.6	-2.6	196.4	152.2	247.5	205.2
245.	24.	.0		-2.6	-2.6	196.4	152.2	247.5	205.2
250.	24.	.0		-2.6	-2.6	196.4	152.2	247.5	205.2
255.	24.	.0		-2.6	-2.6	196.4	152.2	247.5	205.2
260.	24.	.0		-2.6	-2.6	196.4	152.2	247.5	205.2
265.	24.	.0		-2.6	-2.6	196.4	152.2	247.5	205.2
270.	24.	.0		-2.6	-2.6	196.4	152.2	247.5	205.2
275.	27.	.0		-3.7	-3.7	191.0	148.0	247.5	205.2
280.	32.	.0		-5.5	-5.5	181.6	140.7	247.5	205.2
285.	37.	.0		-7.1	-7.1	173.9	134.8	247.5	205.2
290.	42.	.0		-8.5	-8.5	167.5	129.8	247.5	205.2
295.	47.	.0		-9.7	-9.7	162.0	125.5	247.5	205.2
300.	52.	.0		-10.0	-10.0	160.9	124.7	247.5	205.2
305.	57.	.0		-10.0	-10.0	160.9	124.7	247.5	205.2
310.	62.	.0		-10.0	-10.0	160.9	124.7	247.5	205.2
315.	67.	.0		-10.0	-10.0	160.9	124.7	247.5	205.2
320.	72.	.0		-10.0	-10.0	160.9	124.7	247.5	205.2
325.	77.	.0		-10.0	-10.0	160.9	124.7	247.5	205.2
330.	82.	.0		-10.0	-10.0	160.9	124.7	247.5	205.2
335.	87.	.0		-10.0	-10.0	160.9	124.7	247.5	205.2
340.	92.	.0		-10.0	-10.0	160.9	124.7	247.5	205.2
345.	97.	.0		-10.0	-10.0	160.9	124.7	247.5	205.2
350.	102.	.0		-10.0	-10.0	160.9	124.7	247.5	205.2
355.	107.	.0		-10.0	-10.0	160.9	124.7	247.5	205.2
360.	112.	.0		-10.0	-10.0	160.9	124.7	247.5	205.2

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HORIZON ANTENNA GAIN PLOT 6 GHZ



HORIZON ANTENNA PLOT 4 GHZ

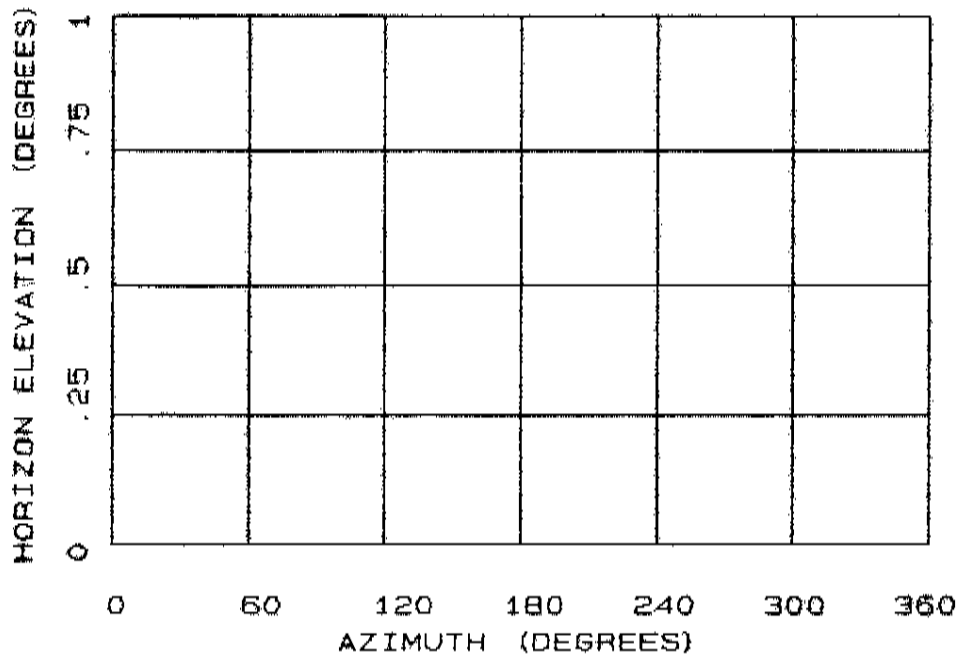


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03-05-2008

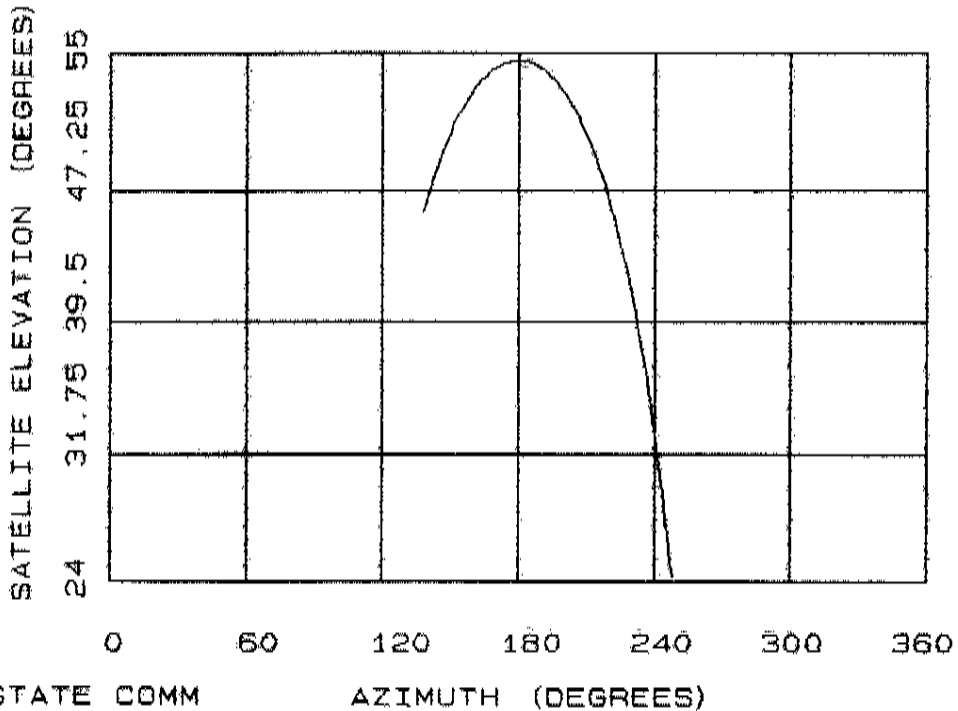
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LOCAL HORIZON PLOT



SATELLITE ELEVATION PLOT

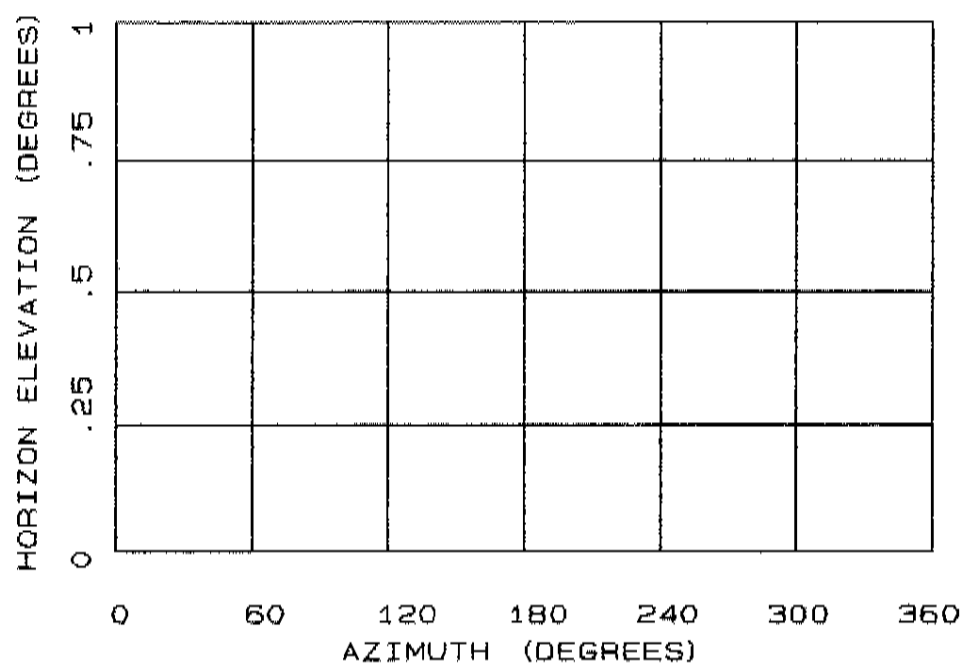


INTERSTATE COMM  
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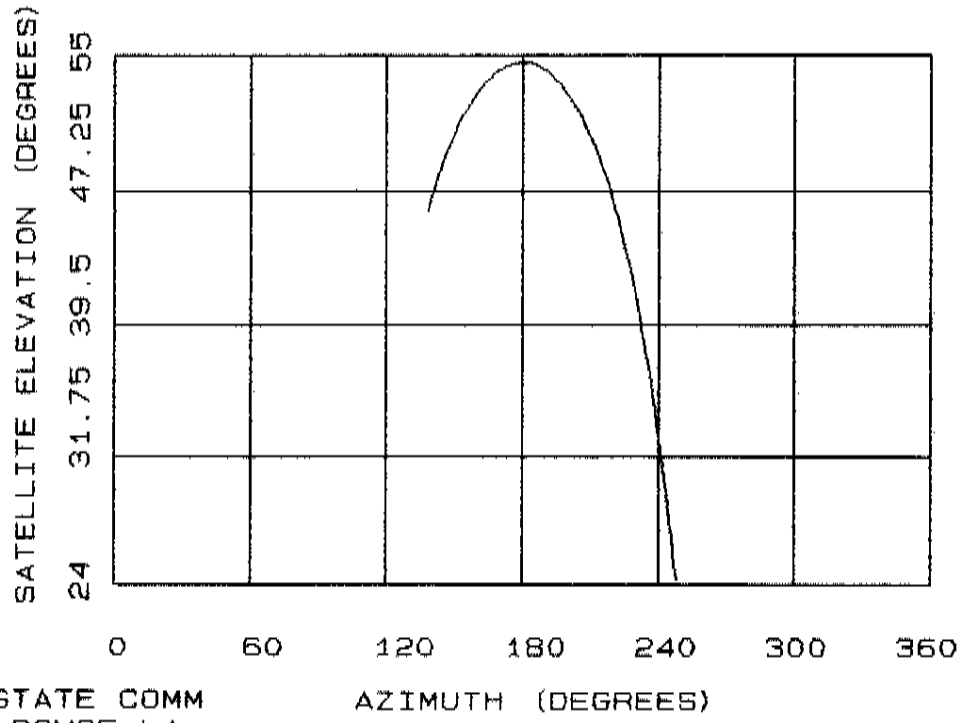
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### LOCAL HORIZON PLOT

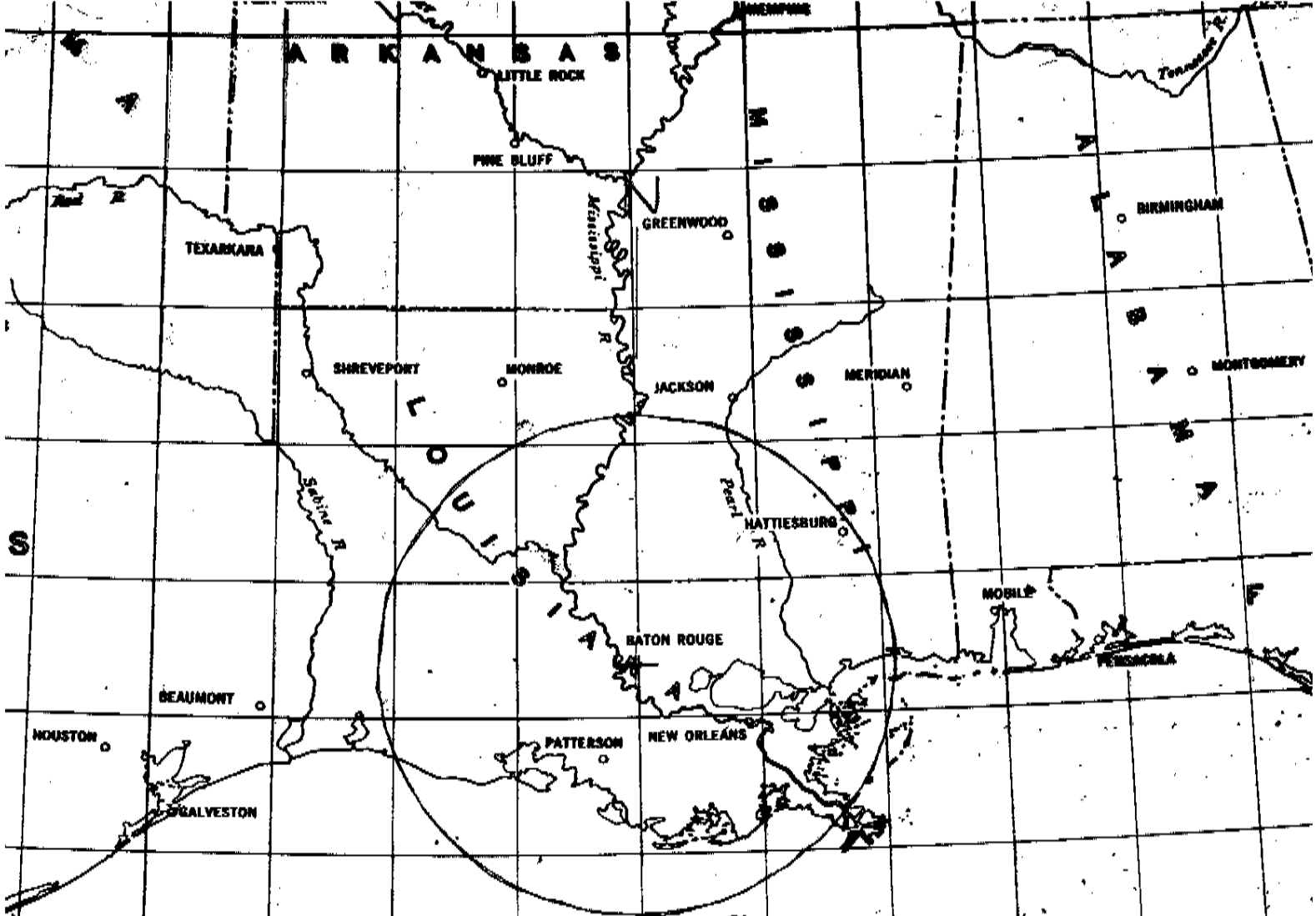


### SATELLITE ELEVATION PLOT



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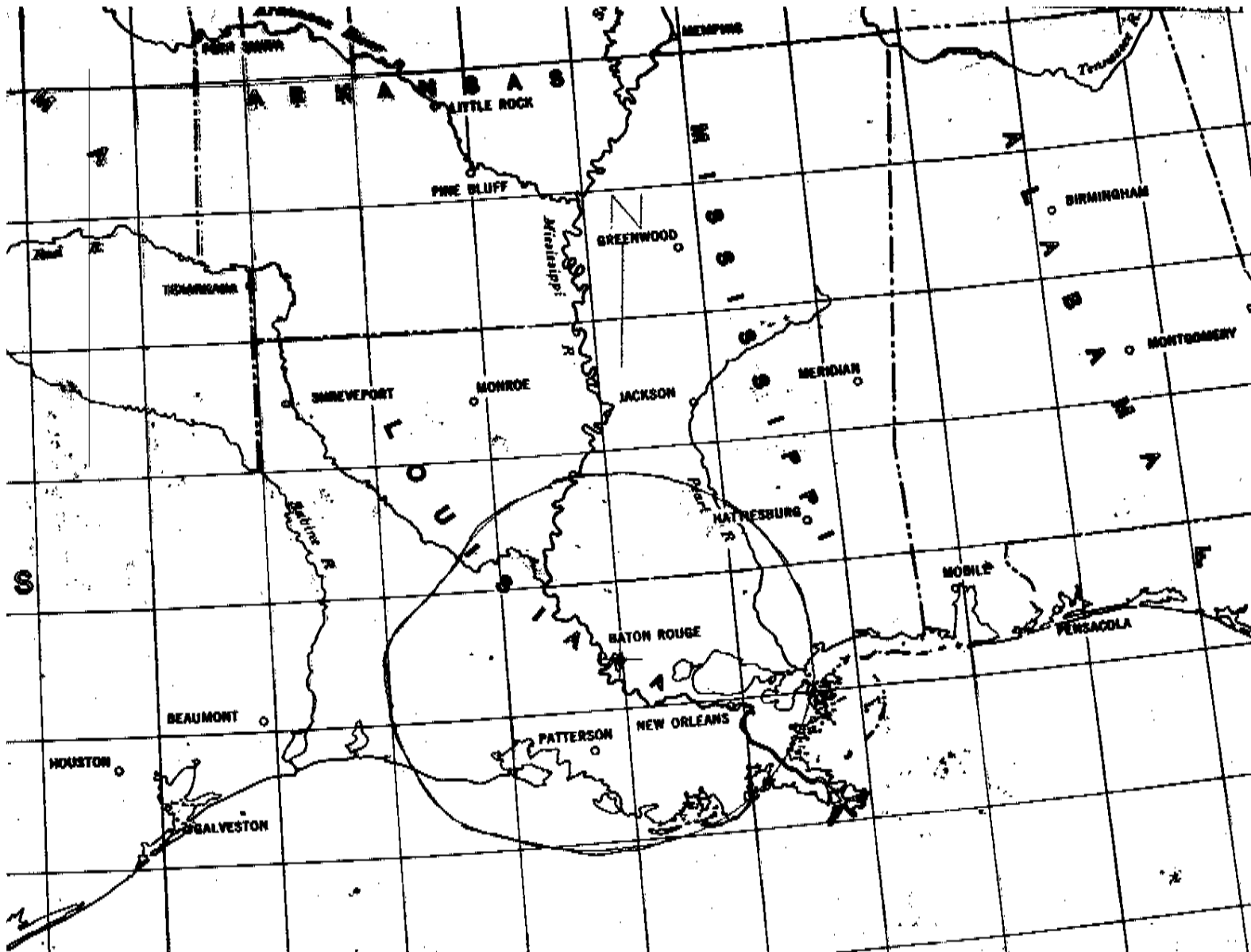
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6 GHz  
RAIN SCATTER

U S I N T E R S T A T E C O M M U N I C A T I O N S A U T H O R I T Y  
 B A T O N R O U G E , L A  
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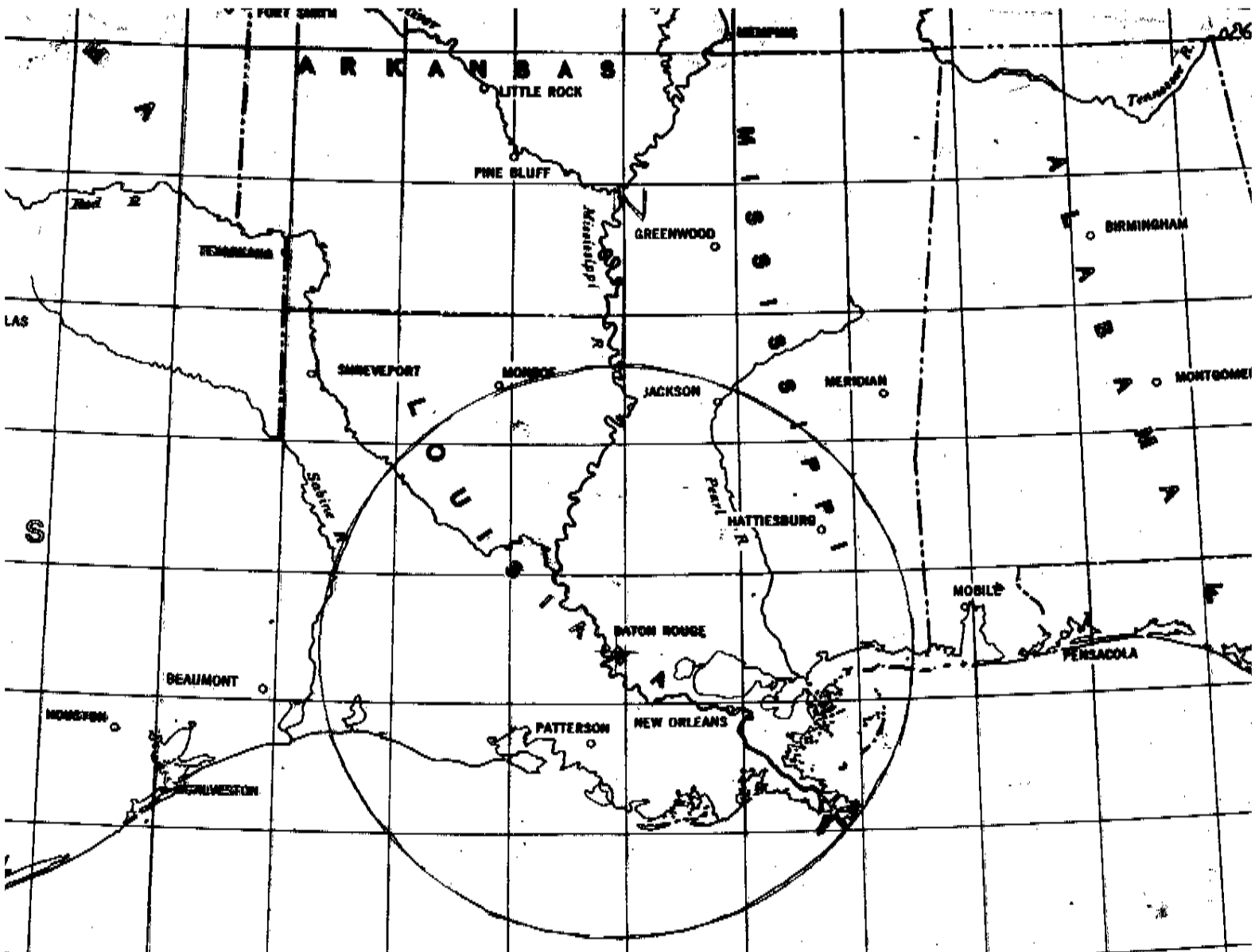
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4 GHz  
COORDINATION CONTOUR

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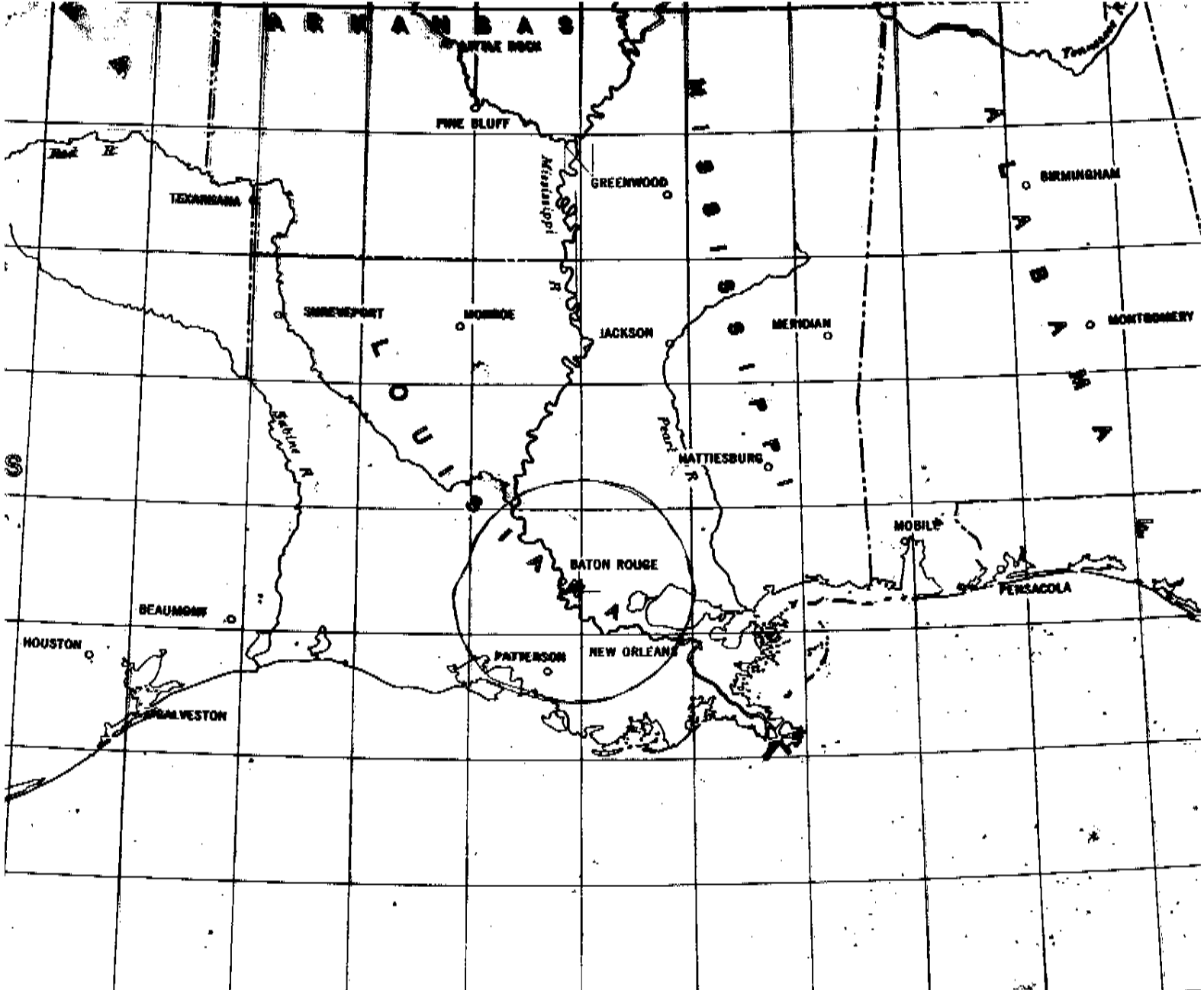


4 GHz  
RAIN SCATTER

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6 GHz  
COORDINATION CONTOUR

U L F O F M E X

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